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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,773	09/22/2004	Hiroshi Fujii	TASH-7	7976

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EXAMINER

REESE, DAVID C

ART UNIT PAPER NUMBER

3677

DATE MAILED: 05/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/508,773

Applicant(s)

FUJII ET AL.

Examiner

David C. Reese

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-19 is/are pending in the application.
- 4a) Of the above claim(s) 4-8, 10-16 and 19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 10, 11, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

THIS FINAL ACTION IS RESPONSIVE TO THE AMENDMENT FILED 2/28/2006.

- Claims 1-8, 10-19 were amended.
- Claims 4-8, 12-16, and 19 are withdrawn.
- Claims 1-8, 10-19 are pending.

Election/Restrictions

[1] This application contains claims 4-8, 12-16, and 19 drawn to a species nonelected without/with traverse in Paper No. 9/8/2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Objections

[2] Claim 2 is objected to because of the following informalities: In the most reasonable interpretation possible, an angle of a male screw that is perpendicular to another axis (such as a the multi-pitch screw) does not necessarily have to be flat [as so indicated by the term in parenthesis (flat) in the instant claim]. Therefore, the claim is slightly indefinite as to the exact definiteness behind the mild lead angle of the male screw. To incorporate the term “flat” into the instant claim, the examiner recommends that applicant remove the parenthesis and submit said term properly into said claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

[3] Applicant amendment attempted to address all rejections under 35 USC § 112 to Claims 3 and 11 in the amendment filed 2/28/2006. Accordingly, the Examiner has not withdrawn the 35 USC § 112 rejections. In the instant case, though amended, the subject matter from the instant claims still provide ambiguity with respect to the lock angle that was described previously

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in the prosecution of this application. The claims still remain indefinite as they fail to clarify the “angle” which causes said multi-pitch screw to lock with the multi-pitch nut. Namely, for the screw to lock with the nut, the claims solely call for a lead angle of the male screw (or female screw) that is steeper than “an angle”. More definiteness is needed to clarify said “an angle.”

Claim Rejections - 35 USC § 102

[4] The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

[5] Claims 1-2, 10, and 17-18 are rejected under 35 U.S.C. 102(b) as clearly anticipated by Pearson, US- 113,557, because the invention was patented or described in a printed publication in this or a foreign country, or in public use or on sale in this country more than one (1) year prior to the application for patent in the United States.

The shape and appearance of Pearson is identical in all material respects to that of the claimed design, *Hupp v. Siroflex of America Inc.*, 122 F.3d 1456, 43 USPQ2d 1887 (Fed. Cir. 1997).

As for Claim 1, Pearson teaches of a combination of a multi-pitch screw (Fig. 1) and a multi-pitch nut (Fig. 4) said multi-pitch screw (Fig. 1) comprising a thread of a male screw (Fig. 1) is formed such that sections having a mild lead angle (downward angle) and sections having a steep lead angle (upward angle) are arranged alternately and continuously (the downward and upward angles are indeed arranged alternately and continuously as one can notice from Fig. 1) during a single turn along a spiral line, said multi-pitch nut (Fig. 4) comprising a thread of a female screw formed such that a section in which the lead angle (downward angle) is mild and a section in which the lead angle is steep (upward angle) are arranged alternately and continuously (the downward and upward angles are indeed arranged alternately and continuously as one can notice from Fig. 1) during a single turn along the spiral line.

Re: Claim 2, wherein the lead angle of said section having a mild lead angle (downward angle) of the male screw (Fig. 1) is perpendicular to the axis of the multi-pitch screw (In the most reasonable interpretation possible, an imaginary line through the downward angle of the male screw of Fig. 1 can be seen as intersecting the axis of the multi-pitch screw and is therefore considered perpendicular to the axis of the multi-pitch screw).

Re: Claim 10, wherein the lead angle of said section of said female screw (Fig. 1) in which said lead angle is mild is perpendicular to the axis of the multi-pitch screw (In the most reasonable interpretation possible, an imaginary line through the lead angle of the female screw

of Fig. 4 can be seen as intersecting the axis of the multi-pitch screw and is therefore considered perpendicular to the axis of the multi-pitch screw).

Re: Claim 17, a feed screw device (combination of Figs. 1 and 4) comprising said combination of a multi-pitch screw (Fig. 1) and a multi-pitch nut (Fig. 4).

Re: Claim 18, a screw fastener mechanism (combination of Figs. 1 and 4) comprising said combination of a multi-pitch screw (Fig. 1) and a multi-pitch nut (Fig. 4).

Response to Arguments

[6] Applicant's amendments and remarks filed 2/28/2006 regarding rejections under 35 U.S.C. 102 have been fully considered but they are not persuasive. The applicant primarily contends that Pearson does not teach of a mild lead and steep lead angles that are arranged alternately and continuously during a single turn along both the male and female screw. The examiner disagrees since Fig. 1 of Pearson clearly shows continuous and alternating angles (downward mild and upward steep) both the male and female screw. Further, as described above, in the broadest reasonable interpretation possible, an imaginary line through the lead angle of the male and female screw of Figs. 1 and 4 can be seen as intersecting the axis of the multi-pitch screw and is therefore considered perpendicular to the axis of the multi-pitch screw; therefore Pearson still anticipates the instant claims that contain said subject matter. Lastly, the examiner does not have to label said mild and steep angles as the same as applicant, as it is solely the claims that define the claimed invention, and it is claims, not specifications that are anticipated or unpatentable. *Constant v. Advanced Micro-Devices Inc.*, 7 USPQ2d 1064. It is clearly apparent from Fig. 1 that Pearson shows of a downward (mild) angle and an upward (steep) angle.

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Conclusion

[7] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[8] Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Reese whose telephone number is (571) 272-7082. The examiner can normally be reached on 7:30 am-6:00 pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J.J. Swann can be reached at (571) 272-7075. The fax number for the organization where this application or proceeding is assigned is the following: (571) 273-8300.

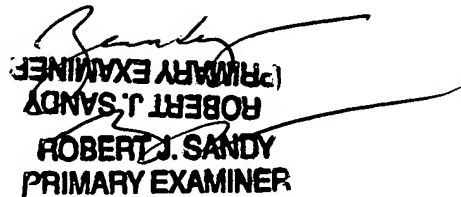
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Reese
Assistant Examiner
Art Unit 3677

DCR



5/5/06



ROBERT J. SANDY
PRIMARY EXAMINER